



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

RBE117-12020-W20-3
Job Sheet 185122



2154
DEC 5

Part No: RBE117-12020-W20-3

Job Qty: 4 ea

Part Name: Cup



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 10/23/18

Job Tracking No:

Due Date: 11/30/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG RBE117-12020-W20 Rev. 0 IPP Rev. A 18.09.28 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	4 Ea	11/30/18	11/30/18	0.00	0.00	Start Up Machining-3		
120	CNC Lathe	4 pcs	11/30/18	11/30/18	0.00	4.00	MORI NLX		
130	QC	4 pcs	11/30/18	11/30/18	0.00	0.00	QC2 Machining-4		
140	QC	4 pcs	11/30/18	11/30/18	0.00	0.00	QC8 Machining-4		
170	Outsource	4 pcs	11/30/18	11/30/18			GRO002-VC	10	
180	Packaging	4 pcs	11/30/18	11/30/18	0.00	0.00	Packaging2		
190	QC	4 pcs	11/30/18	11/30/18	0.00	0.00	QC6		
200	Packaging	4 pcs	11/30/18	11/30/18	0.00	0.00	Packaging3-1		
210	QC21-SA	4 Ea	11/30/18	11/30/18	0.00	0.00	QC21		

Part Op 120 - 1-Machine as per DWG. FC409 FOLIO REV: AA DWG REV: 2-Debur
Descriptions: 170 - -Issue P/O to GROUPE ALTECH; PO 041986 -Black oxide finish, MIL-C-13924C Class 1 -Apply thin layer of oil/CPC per MIL-PRF-16173 Grade 3 Class 1 or MIL-c-81309 Type III Or MILL-C23411A or MIL-PRF-81309 and wipe off excess. -Material type; 4140 -Certificate of Conformity is required

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MT-4140QT-R3.000	AISI 4140 Quenched &Tempered Steel Round Bar 3.000" Dia.	.4880 ft (.122 ea)	90-Start up Operation	

5122006

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	MT-4140QT-R3.000	0	0	0

Part Specifications



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

ould not be found.

Plex 10/23/18 7:57 AM Dart.lajeunesse.marie

Container No: S135288



Part: RBE117-12020-W20-3

Job No: 185122

Serial No/Batch: S135288

Revision: 0

Inspector:

Exp Date:

Instructions:

Date: 12/06/18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

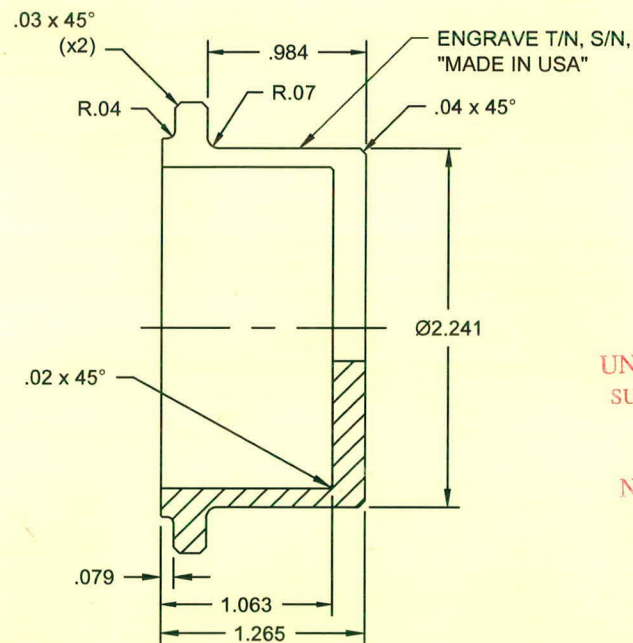
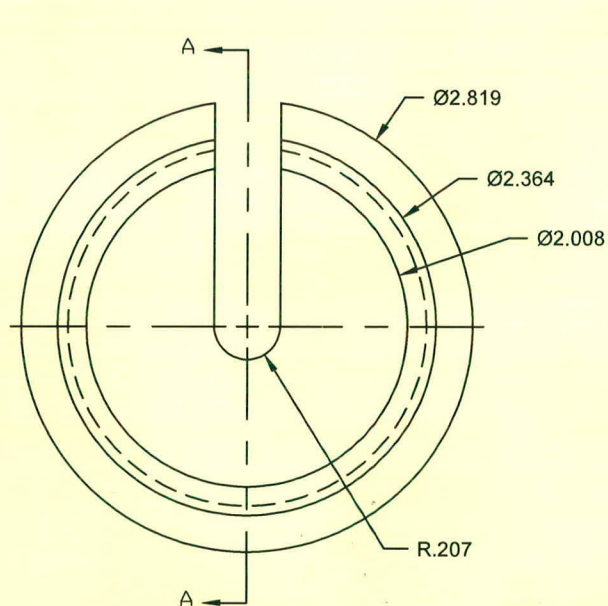
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

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REVISIONS			
REV	DESCRIPTION	DATE	INITIAL APPROVED



SECTION A-A

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 185122 *mc5*
18-10-23

(-3)
CUP

RED BARN MACHINE	
TITLE PUSHER MGB INPUT SEAL	
DWG NO. RBE117-12020-W20-3	REV
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 .X ± .1	
FRACTIONS ± 1/32 ANGLES ± .5°	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° P.R. .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE NTS	DATE 7-14-10
SHEET 2 of 4	
DRAWN BY: CLOUGH	
APPROVED <i>D. Wed</i>	
HEAT TREAT BLACK OXIDE	
SPEC	
USED ON MODEL EC145	



Dart Aerospace Ltd.
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PURCHASE ORDER **PO041986**

Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

PO No: PO041986
PO Date: 12/7/18
Due Date: 12/17/18
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Tsimiklis, ChrisoulaPhone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 60
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	186298	RB6872879-3	Counterbore Cutter -Issue P/O; -Black oxide finish, MIL-C-13924C Class 1 -Apply thin layer of oil/CPC per MIL-PRF-16173 Grade 3 Class 1 or MIL-c-81309 Type III Or MILL-C23411A or MIL-PRF-81309 and wipe off excess. -Material type; -Certificate of Conformity is required	Firmed	-	12/17/18	1 pcs	0 pcs	1 pcs	\$5.454545/pcs	\$5.45
2	185122	RBE117-12020-W20-3	Cup -Issue P/O to GROUPE ALTECH; PO -Black oxide finish, MIL-C-13924C Class 1 -Apply thin layer of oil/CPC per MIL-PRF-16173 Grade 3 Class 1 or MIL-c-81309 Type III Or MILL-C23411A or MIL-PRF-81309 and wipe off excess. -Material type; 4140 -Certificate of Conformity is required	Firmed	-	12/17/18	4 pcs	0 pcs	4 pcs	\$5.454545/pcs	\$21.82

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PURCHASE ORDER **PO041986**

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3	185131	RBE117-68021W5-1	Plate -Issue P/O to GROUPE ALTECH; PO -Black oxide finish, MIL-C-13924C Class 1 -Apply thin layer of oil/CPC per MIL-PRF-16173 Grade 3 Class 1 or MIL-c-81309 Type III Or MILL-C23411A or MIL-PRF-81309 and wipe off excess. -Material type; 4140 -Certificate of Conformity is required	Firmed	-	12/17/18	8 pcs	0 pcs	8 pcs	\$5.454545/pcs	\$43.64
4	186775	RBT200078-1	Trunnion Bolt (Hex Head Cap Screw) -Issue P/O to GROUPE ALTECH; PO -Black oxide finish, MIL-C-13924C Class 1 -Apply thin layer of oil/CPC per MIL-PRF-16173 Grade 3 Class 1 or MIL-c-81309 Type III Or MILL-C23411A or MIL-PRF-81309 and wipe off excess. -Material type; Steel -Certificate of Conformity is required	Firmed	-	12/17/18	4 pcs	0 pcs	4 pcs	\$5.454545/pcs	\$21.82
5	185467	RBE1120-31502W1-9	Pin -Issue P/O to GROUPE ALTECH; PO -Black oxide finish, MIL-C-13924C Class 1 -Apply thin layer of oil/CPC per MIL-PRF-16173 Grade 3 Class 1 or MIL-c-81309 Type III Or MILL-C23411A or MIL-PRF-81309 and wipe off excess. -Material type; O1 -Certificate of Conformity is required	Firmed	-	12/17/18	5 pcs	0 pcs	5 pcs	\$5.454545/pcs	\$27.27
Grand Total:										\$120.00	



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PURCHASE ORDER PO041986

Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 12/12/18 12:31 PM dart.tsimiklis.chrisoula



Certificat de Conformité / Certificate of Compliance

(015184-3)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

015184 - 3

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.					
13-Dec-2018		Aman		041986					
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order	
2	RBE117-12020-W20-3 Rev. ✓	RBE117-12020-W20-3 01 -OXIDE-BLK & OIL [OXIDE BLACK AND OIL] MIL-C-13924C CLASS 1 APPLY A THIN LAYER OF OIL MIL-PRF-16173 GRADE 3 CLASS 1 WIPE OFF EXCESS	OXIDE-BLACK CH	4	4 ✓	0	0	0	38 9-89
3	RBE117-68021W5-1 Rev. ✓	RBE117-68021W5-1 01 -OXIDE-BLK & OIL [OXIDE BLACK AND OIL] MIL-C-13924C CLASS 1 APPLY A THIN LAYER OF OIL MIL-PRF-16173 GRADE 3 CLASS 1 WIPE OFF EXCESS	OXIDE-BLACK CH	8	8 ✓	0	0	0	
5	RBE1120-31502W1-9 Rev. ✓	RBE1120-31502W1-9 01 -OXIDE-BLK & OIL [OXIDE BLACK AND OIL] MIL-C-13924C CLASS 1 APPLY A THIN LAYER OF OIL MIL-PRF-16173 GRADE 3 CLASS 1 WIPE OFF EXCESS	OXIDE-BLACK CH	5	5 ✓	0	0	0	

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness
Inspecteur Qualité
Quality Inspector
Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.

